Federal Student Aid

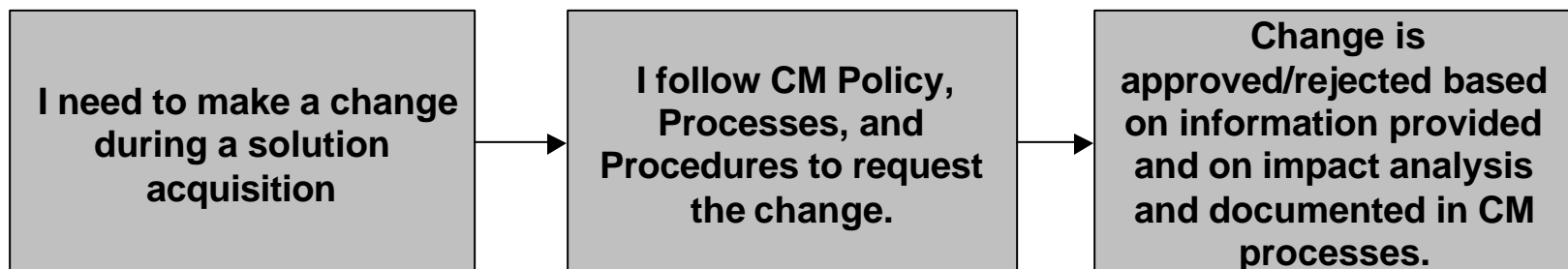# Configuration Management Awareness Presentation

- **Configuration Management Definition**

- **Configuration Management Benefits**

- **Configuration Management Levels**

  - **Enterprise Change Management**

  - **Project Configuration Management**

- **Configuration Management Process in the SLC**

- **Project Level Configuration Management Tasks**

- **Project Level Configuration Management Tools**

- **Deliverables and Summary**

Configuration Management (CM) is Change Control for Solution Acquisitions.

- CM is the process of identifying, organizing, and managing critical work products as they evolve through the Solution Life Cycle (SLC); this includes both software and non-software components.

I need to make a change during a solution acquisition	I follow CM Policy, Processes, and Procedures to request the change.	Change is approved/rejected based on information provided and on impact analysis and documented in CM processes.

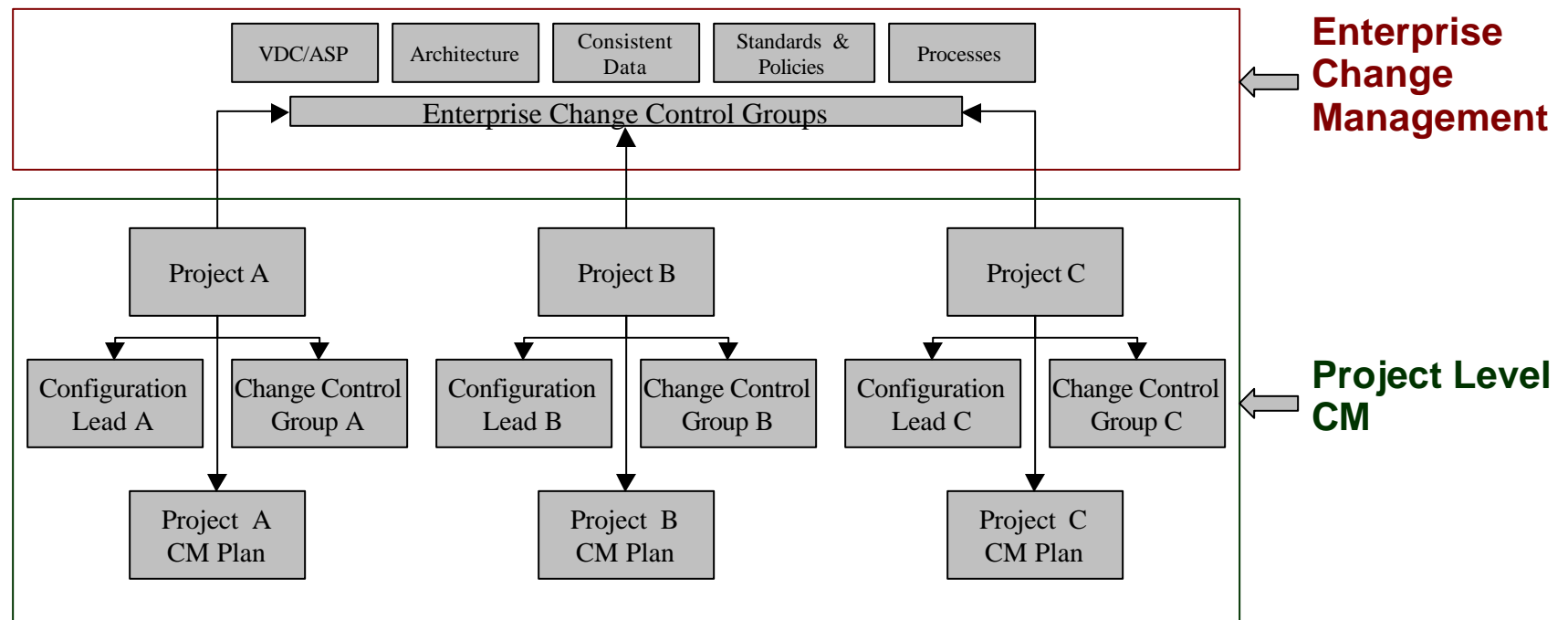- CM takes place at two different levels: Enterprise (FSA-wide) level and Project Level.

CM outlines the appropriate processes and procedures needed to help consistently track and monitor changes throughout the Solution Life Cycle (SLC).

CM saves FSA and Solution Acquisition Projects time, money, and effort, while lowering risk of rework.

- Repeatable processes and procedures do not have to be reinvented

- Best Practices are established and shared among projects, thereby increasing efficiency and effectiveness.

- Time and money are better utilized during projects by not "reinventing the wheel" and referring to the Best Practices already developed.

- The amount of errors and rework is reduced by following a pre-approved process.

- CM assists FSA employees in maintaining organized and accurate data for their projects.

The Enterprise Change Control Groups (CCGs) are used to manage changes that may impact multiple FSA projects or systems.

Enterprise Change Management

VDC/ASP	Architecture	Consistent Data	Standards & Policies	Processes

Enterprise Change Control Groups

Project Level CM

Project A	Project B	Project C

Configuration Lead A	Change Control Group A	Configuration Lead B	Change Control Group B	Configuration Lead C	Change Control Group C

Project A CM Plan	Project B CM Plan	Project C CM Plan

There is significant industry evidence to show that proper CM performance helps prevent costly redesign efforts further in the Solution Life Cycle.

Overview of Enterprise Change Management (ECM) Tool

Configuration Management

Change Requests to the Data Centers are managed via the ECM Tool

A Change Request (CR) is identified...

FSA Application teams
(such as **SAIG**/ FP Portal)
Submit a Production
Change Request
Via the ECM Tool

ECM Tool

Universal CR #s

Enterprise Stakeholders
Have Visibility and Input to the CR Process

Change Requests are reviewed by affected areas and managed to closure via the ECM Tool.

| CR Proposed (Affected Areas Review) | CR Approved (Moved to CCRB Review) | CR Scheduled for Implementation | Resolved CR Reviewed (by Submitter) | CR Closed |

E-Mail Notification

E-Mail Notification

E-Mail Notification

Status updates are automatically sent to affected areas via E-Mail
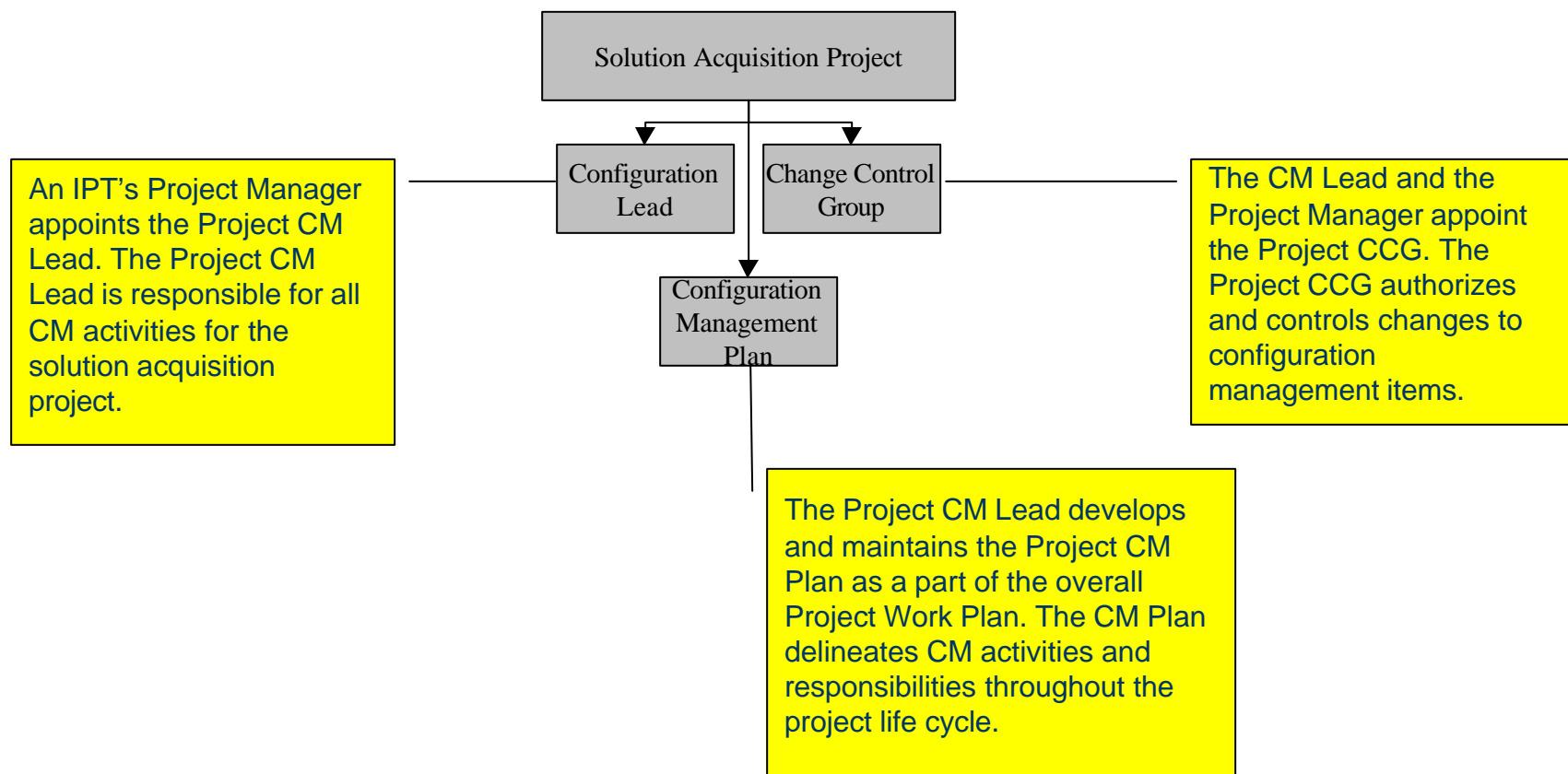**The ECM Tool becomes the Enterprise "Data of Record" for all change activity**

Data Centers (VDC)

CR Progress Updates are logged

As documented in the CM Process Guide, each Solution Acquisition Project has a CM Plan, a Project CCG, and CM Lead.
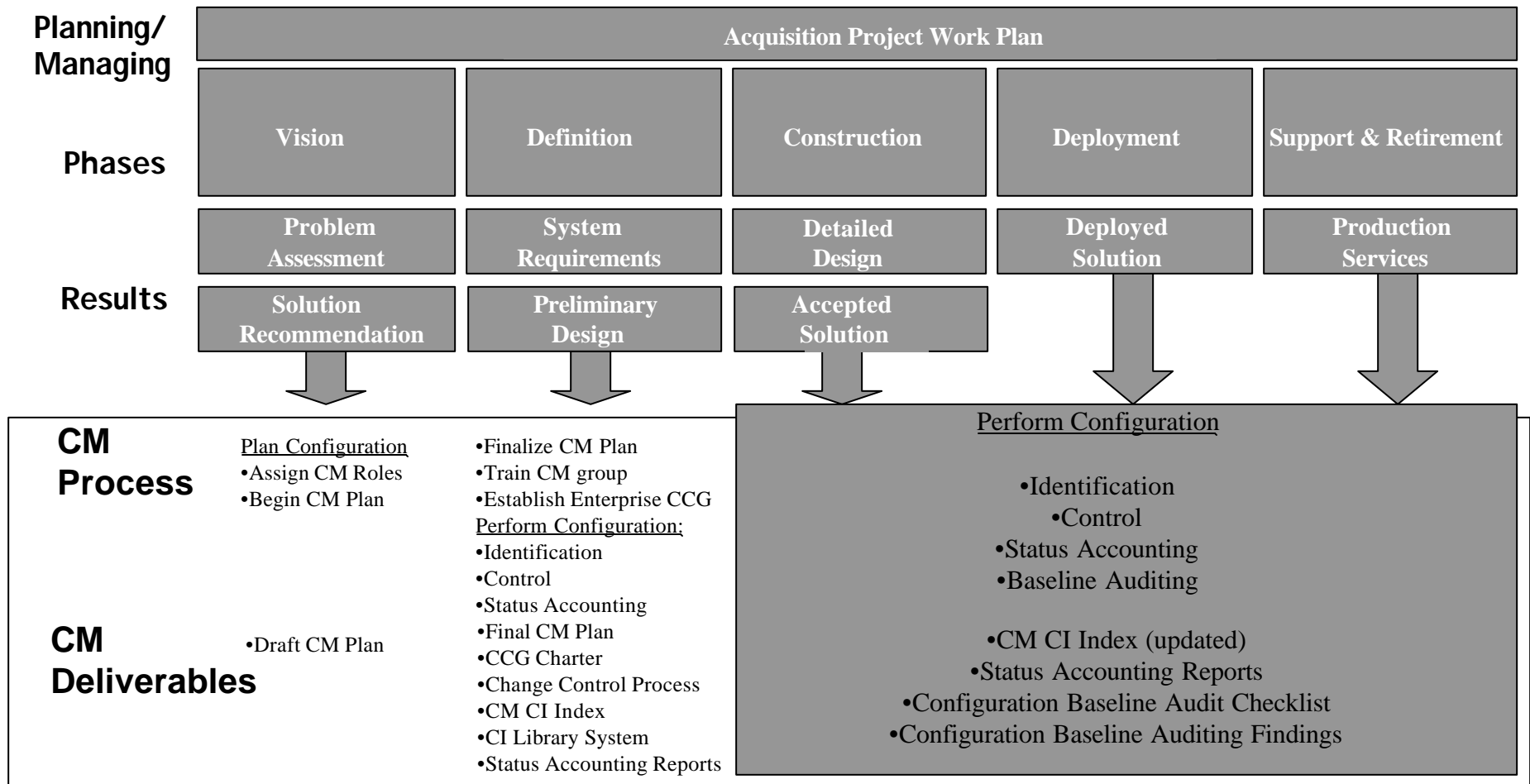
```
                    ┌─────────────────────────────┐
                    │  Solution Acquisition Project │
                    └─────────────────────────────┘
                       │                   │
                       ▼                   ▼
              ┌──────────────┐   ┌──────────────┐
              │ Configuration │   │Change Control│
              │    Lead      │   │    Group     │
              └──────────────┘   └──────────────┘
                              │
                              ▼
                       ┌──────────────┐
                       │ Configuration │
                       │  Management  │
                       │     Plan     │
                       └──────────────┘
```

An IPT's Project Manager appoints the Project CM Lead. The Project CM Lead is responsible for all CM activities for the solution acquisition project.

The CM Lead and the Project Manager appoint the Project CCG. The Project CCG authorizes and controls changes to configuration management items.

The Project CM Lead develops and maintains the Project CM Plan as a part of the overall Project Work Plan. The CM Plan delineates CM activities and responsibilities throughout the project life cycle.

**The Project CM Lead is assigned at the beginning of the SLC to plan and perform CM activities throughout the SLC.**

Planning/ Managing	Acquisition Project Work Plan				
Phases	Vision	Definition	Construction	Deployment	Support & Retirement
	Problem Assessment	System Requirements	Detailed Design	Deployed Solution	Production Services
Results	Solution Recommendation	Preliminary Design	Accepted Solution		

CM Process

Plan Configuration
•Assign CM Roles
•Begin CM Plan

•Finalize CM Plan
•Train CM group
•Establish Enterprise CCG
Perform Configuration:
•Identification
•Control
•Status Accounting

Perform Configuration

•Identification
•Control
•Status Accounting
•Baseline Auditing

CM Deliverables

•Draft CM Plan

•Final CM Plan
•CCG Charter
•Change Control Process
•CM CI Index
•CI Library System
•Status Accounting Reports

•CM CI Index (updated)
•Status Accounting Reports
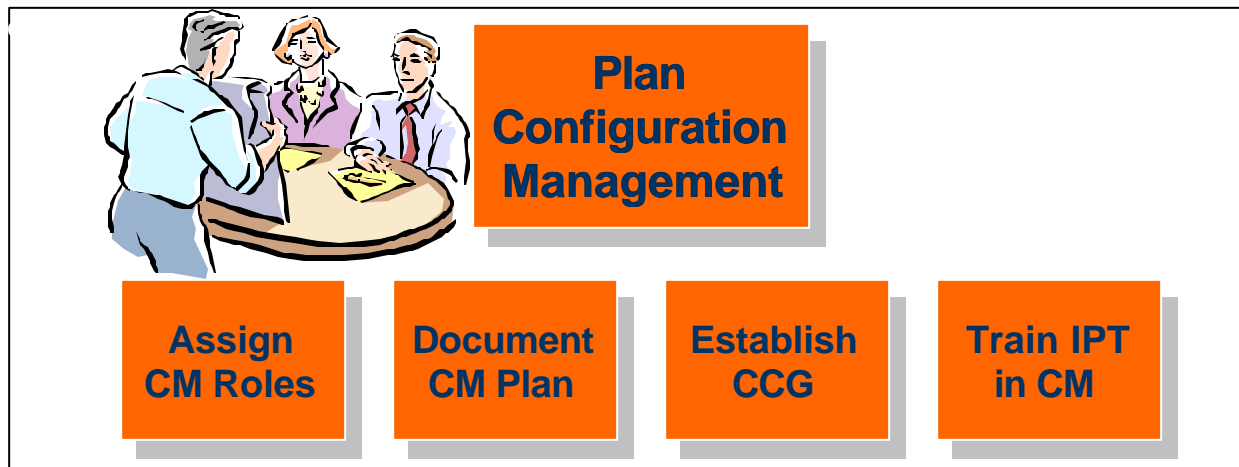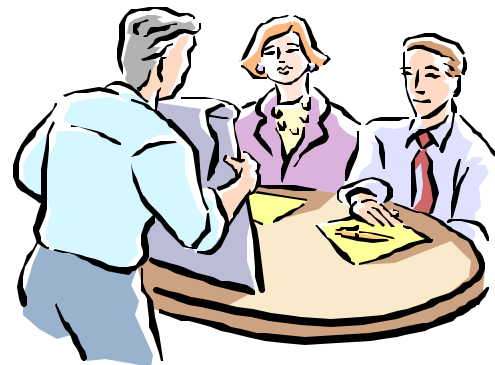•Configuration Baseline Audit Checklist
•Configuration Baseline Auditing Findings

Configuration
Management

The CM Process Guide is the main support tool for the CM Process. The CM Process Guide Defines the following two phases: Planning and Performing.
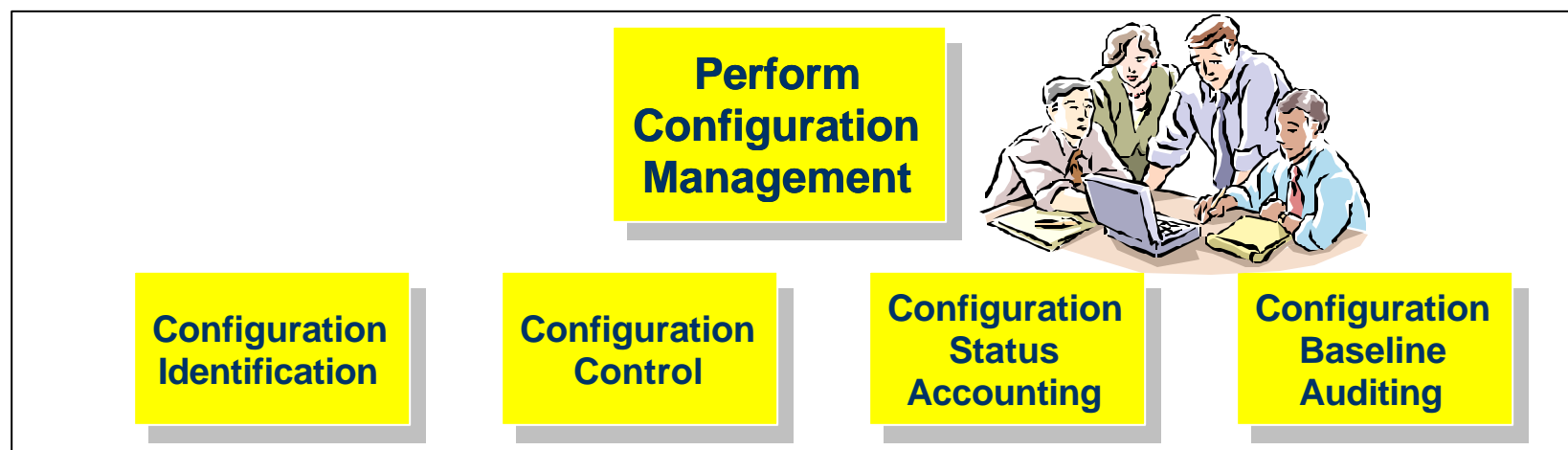
Plan Configuration Management

| Assign CM Roles | Document CM Plan | Establish CCG | Train IPT in CM |

Perform Configuration Management

| Configuration Identification | Configuration Control | Configuration Status Accounting | Configuration Baseline Auditing |

SLC Version 2.0 Awareness Presentation – January 20, 2003

Plan CM

Plan Configuration Management

Assign CM Roles

Document CM Plan

Establish CCG

Train IPT in CM

An IPT's Project Manager appoints the Project CM Lead.

The Project CM Lead develops and maintains the Project CM Plan.

The Project CM Lead appoints the Project CCG.

The Project CM Lead is responsible for ensuring the Project IPT is trained in how to use perform CM for that project.

**Perform
Configuration
Management**

**Configuration
Identification**

**Configuration
Control**

**Configuration
Status
Accounting**

**Configuration
Baseline
Auditing**

Identify what work product items need to be maintained under CM and establish a starting point for each stage of development.

All changes to configuration items are classified, documented, and stored.

Administratively track and report on all of the configuration items.

Ensure CM policies and procedures are followed.

The SLC provides needed processes, procedures, job aids, templates, and samples to support best practices. Tools are provided to enable CM activity at both the project and the enterprise level.

CM Tools

- CM Policy – establishes roles and responsibilities
- **CM Process Guide – provides the steps required to implement CM across FSA**
- CM Plan Template – provides form for project CM plan
- CM Item Identification Index – provides form for what items need to go into CM
- CM Baseline Audit Checklist – provides form for conducting baseline audit

CM enables teams to track and monitor changes in a consistent manner throughout the project life cycle. This allows projects to save time and money on rework throughout the SLC.

Plan CM

Perform CM

CM Activity	Deliverables
Plan Configuration Management	
Assign Configuration Management Roles	Project CM Lead Assigned
Document Configuration Management Plan	Configuration Management Plan
Establish Change Control Group	Change Control Group Charter
Train Configuration Management	CM Project Resources are trained
Perform Configuration Management	
Configuration Identification and Baselining	CM Plan Configuration Item Index Configuration Item Library System
Configuration Control	Change Control Process
Configuration Status Accounting	Appropriate Status Accounting Reports
Configuration Auditing	Configuration Audit Checklist Configuration Audit Findings